

**MOLECULAR GENETIC BASIS OF CELL AND TISSUE
STRUCTURE AND FUNCTION**

*FASEB Summer Conference
June 13-18, 1993
Copper Mountain, CO*

*Conference Chairperson: Sheldon Penman, Department of Biology,
Massachusetts Institute of Technology, Cambridge, MA*

*Conference Co-Chairperson: Gary Stein, Department of Cell Biology,
University of Massachusetts Medical School, Worcester, MA*

Acknowledgments

We wish to thank the people of the FASEB Summer Research Conferences staff for helping us have a successful meeting.

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General Information

Sessions Schedule:

9:00 a.m. - 12:00 noon Morning Session

8:30 a.m. - 11:30 a.m. (Friday only)

1:30 p.m. - 5:00 p.m. Afternoon Free

5:00 p.m. - 6:00 p.m. Poster Session

7:30 p.m. - 10:00 p.m. Evening Session

(See attached daily schedules for specific session titles and speakers)

Dining hours are as follows:

Sunday

7:00 p.m. - 8:30 p.m. Buffet Dinner

Monday thru Thursday

7:30 a.m. - 9:00 a.m. Breakfast

12:00 p.m. - 1:30 p.m. Lunch

6:00 p.m. - 7:30 p.m. Dinner

Friday

7:30 a.m. - 8:30 a.m. Breakfast

12:00 p.m. Box Lunch Available

Sunday, June 13, 1993

2:00 p.m.

FASEB Conference Office opens for
registration

6:00 p.m. - 7:00 p.m.

Reception for participants and guests

7:00 p.m. - 8:30 p.m.

Buffet Dinner

Monday, June 14, 1993

9:00 a.m. - 12:00 noon Morning Session

SESSION I:

Cellular Architecture and Gene Expression

Sheldon Penman (chair)
Massachusetts Institute of Technology, Cambridge, MA

Ron Berezney
State University of New York at Buffalo, Buffalo, NY
"Replicating the Mammalian Genome in Three Dimensions"

Roel van Driel
University of Amsterdam, Amsterdam, The Netherlands
"Nuclear Organization: Compartments, Chromatin and Matrix"

Don Ingber
Harvard Medical School, Boston, MA
"Integrating Cell Structure and Function"

5:00 p.m. - 6:00 p.m. Poster Session

7:30 p.m. - 10:00 p.m. Evening Session

SESSION II:

Nuclear Architecture and Transcription

Gary Stein (chair)
University of Massachusetts Medical School, Worcester, MA

Thomas Spelsberg
Mayo Clinic and Graduate School of Medicine, Rochester, MN
RBF-1: An Avian Nuclear Matrix Protein Linked to Pg/Dex Action on
Gene Transcription"

Constanze Bonifer
Institut für Biologie III der Universität Freiburg, Freiburg,
Germany
"Dissection of the Locus Control Function Located on the Chicken
Lysozyme Gene Domain in Transgenic Mice"

Tuesday, June 15, 1993

9:00 a.m. - 12:00 noon Morning Session

SESSION III:

Cytoarchitecture: mRNA Localization and Protein Targeting

Robert Singer (Chair)

University of Massachusetts Medical School, Worcester, MA

"Cellular and Molecular Mechanisms of mRNA Localization"

Alice Fulton

University of Iowa, Iowa City, IA

"mRNA Location Changes During Development"

Robert Goldman

Northwestern University Medical School, Chicago, IL

"Dynamic Aspects of Nucleoskeletal and Cytoskeletal Intermediate Filament Networks"

Don Cleveland

Johns Hopkins University, Baltimore, MD

"Gene Regulation Through Co-Translational mRNA Instability"

5:00 p.m. - 6:00 p.m. Poster Session

7:30 p.m. - 10:00 p.m. Evening Session

SESSION II:

Extracellular Matrix and Gene Expression

Jane Lian (Chair)

University of Massachusetts Medical School, Worcester, MA

Gail Sonenshein

Boston University School of Medicine, Boston, MA

"Effects of TGF- β 1 on Extracellular Matrix Production by the Vascular Smooth Muscle Cell"

Lola Reid

Albert Einstein College of Medicine, Bronx, NY

"Cooperative Effects of Heparins and Hormones in the Regulation of Tissue-Specific Gene Expression"

Wednesday, June 16, 1993

9:00 a.m. - 12:00 noon Morning Session

SESSION V:

Regulation of Gene Expression During Organ Development

Nancy Bucher (Chair)

Boston University School of Medicine, Boston, MA

"Effect of Extracellular Matrix on Growth and Gene Expression in Adult Rat Hepatocytes"

James Rheinwald

BioSurface Technology, Inc., Cambridge, MA

"Regulation of Growth, Differentiation and Tissue Formation by Cultured Human Cells"

Yigong Xing

University of Massachusetts Medical Center, Worcester, MA

"Nuclear Structure Studied by Fluorescence Hybridization: Visualization of Individual Gene Transcription and RNA Splicing"

5:00 p.m. - 6:00 p.m. Poster Session

7:30 p.m. - 10:00 p.m.

SESSION VI:

Nuclear Structure and Gene Expression

Gordon Hager (chair)

National Institutes of Health, Bethesda, MD

William Brinkley

Baylor College of Medicine, Houston, TX

"Matrix Proteins of the Interphase Nucleus with Functional Roles in the Mitotic Apparatus"

Jeffrey Nickerson

Massachusetts Institute of Technology, Cambridge, MA

"The Nuclear Matrix -- A Beautiful Theory"

Thursday, June 17, 1993

9:00 a.m. - 12:00 noon Morning Session

SESSION VII:

Molecular Parameters of Growth and Tissue Remodeling

Arthur Pardee (chair)
Harvard Medical School, Boston, MA
"Regulation of Gene Expression in Cell Compartments"

Don Coffey
Johns Hopkins School of Medicine, Baltimore, MD
"Nuclear Organization and Tissue-Specificity"

Michael Klagsbrun
Harvard Medical School, Boston, MA
"Heparin-Binding EGF; Structure-Function Relationships"

5:00 p.m. - 6:00 p.m. Poster Session

7:30 p.m. - 10:00 p.m. Evening Session

SESSION VIII:

Contributions of Cell Shape and Tissue Organization to Regulation of Gene Expression

Stephen Farmer (chair)
Boston University School of Medicine, Boston, MA
"Cell Adhesion and Fibroblast Growth Factor Regulate Myogenin Transcription During Myoblast Growth and Differentiation"

Avri Ben-Ze'ev
Weizmann Institute of Science, Rehovot, Israel
"Regulation of Microfilament-Associated Protein Expression During Growth, Differentiation and Transformation"

Lawrence True
University of Washington Medical Center, Seattle, WA
"Correlation of Patterns of Cell and Tissue Structure with Specific Disease Categories: Atrophy, Repair, Therapy and Malignancy"

Friday, June 18, 1993

8:30 a.m. - 11:30 p.m. Morning Session

SESSION IX:

Alterations of Cell and Tissue Architecture with Malignancy

David Denhardt (chair)

Rutgers University, Piscataway, NJ

"Osteopontin: A Cell Signalling Molecule that Controls Nitric Oxide Production"

Robert Hoffman

University of California at San Diego, La Jolla, CA

"MetaMouse: The Nude Mouse Comes to the Cancer Clinic via Orthotopic Transplantation of Architecturally-Intact Patient Tumors"

Ruth Sager

Harvard Medical School, Boston, MA

"Down Regulated Genes in Breast Cancer that Affect Cell Structure/Function"

Noel Weidner

University of California, San Francisco, CA

"Tumor Dedifferentiation and its Association with Aggressive Malignant Behavior"

12:00 noon

Bus leaves for Stapleton Airport
Denver (box lunch served on bus)